

**REMARKS**

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1-5 and 7-14 are now present in the application. Claims 8-14 have been added. Claim 6 has been cancelled. Claims 1 and 9 are independent. Reconsideration of this application, as amended, is respectfully requested.

**Allowable Subject Matter**

The Examiner has indicated that dependent claim 6 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. Applicants greatly appreciate the indication of allowable subject matter by the Examiner.

By the present amendment, independent claim 9 has been added to include the subject matter of dependent claim 6 and its base claim 1, which were indicated by the Examiner as including allowable subject matter. Accordingly, it is believed that claim 9 and its dependent claims 10-14 are in condition for allowance.

**Claim Rejections Under 35 U.S.C. § 103**

Claims 1-5 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hobbs, U.S. Patent No. 6,185,019. This rejection is respectfully traversed.

The Examiner correctly acknowledged that Hobbs fails to teach a hemisphere lens as recite in claim 1. However, the Examiner made a conclusive statement that coupling the beams by means of a hemi-sphere lens is well known

and it would have been obvious to utilize a hemi-sphere lens instead of the prism. Applicants respectfully disagree.

In particular, the Examiner did not rely on any reference teaching a hemi-sphere lens for forming a nano grating device. The Examiner also failed to provide his basis of the suggestion or motivation to modify Hobbs' prism 50 with a hemi-sphere lens. Accordingly, it would be impermissible hindsight based on Applicant's own disclosure to incorporate the teachings of Hobbs with features not taught in the utilized prior art relied on by the Examiner. If the Examiner persists in his position, Applicants respectfully request that the Examiner provide the reference(s) disclosing the hemi-sphere lens and proper motivation to modify Hobbs' prism with a hemi-sphere lens.

To further clarify the present invention, Applicants respectfully submit that the hemi-sphere lens provides for a feature that the fourth beam can enter into the hemi-sphere lens in any direction without considering the angle of the inclined faces of the prism. Unlike the claimed invention, Hobbs discloses "[f]or a three beam system, the prism includes three inclined faces that correspond to and respectively receive the three illuminating beams; similarly, for a four beam system, the prism includes four inclined faces that correspond to and respectively receive the four illuminating beams" (see col. 12, lines 23-27). Therefore, it is necessary to consider the angle of the inclined faces of Hobbs' prism for receiving the incident beams from different angles.

Accordingly, since Hobbs fails to teach each and every element recited in claim 1, and the Examiner fails to provide his basis of the motivation to modify Hobbs' prism with a hemi-sphere lens, claim 1 and its dependent claims clearly define over the teachings of the reference relied on by the Examiner.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103 are respectfully requested.

### **Additional Claims**

In addition to new claims 9-14, additional claim 8 has been added for the Examiner's consideration.

Claim 8 recites a combination of elements including "the photosensitive substrate is directly in contact with the flat surface of the hemi-sphere lens". Support for claim 8 can be found in FIG. 10 of the instant application.

Hobbs discloses a holographic patterning tool including a prism 50 having a flat base 62, a wafer 52 having a photoresist coating 56, and an index matching fluid 58 placed in a gap 60 between the wafer 52 and the base 62 of the prism 50 (see FIG. 5). Hobbs fails to teach that the photoresist coating 56 on the wafer 52 is directly in contact with the prism 50. Accordingly, Hobbs fails to teach the above recitation of claim 8.

Applicants respectfully submit that claim 8 is allowable due to the additional recitation included in this claim, as well as due to its dependence on independent claim 1.

Favorable consideration and allowance of additional claims 8-14 are respectfully requested.

### **CONCLUSION**

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but merely to show the state of the prior art, no further comments are necessary with respect thereto.


It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Joe McKinney Muncy, Registration No. 32,334 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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